

**ORDER**

**6000.50A**

**AIRWAY FACILITIES  
NATIONAL AIRSPACE SYSTEM OPERATIONS HANDBOOK**



DECEMBER 17, 1996

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

Distribution: A-W (SD/FD/AT/AF) - 2 A-Y (DE/AY) - 2 A-Z (CN) - 2 Initiated by: AOP-300  
A-X (AT/AF/FS) - 3 A-FOF -0 (STD)



## FOREWORD

This document provides direction and guidance for the day-to-day operation of control center facilities under the administrative jurisdiction of the Federal Aviation Administration's Director of Airway Facilities (AF). Current operational procedures and other FAA orders that impact the daily operation of the NAS have been reviewed and are incorporated in part or in whole into this order. This document was developed to establish standardized operating procedures and assign responsibility to AF personnel engaged in mission operations functions and processes.



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Director of Airway Facilities



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**Appendices are provided within the electronic version of 6000.50A**

**Changes to appendices are accomplished through Clearance Records, information from field personnel, and by coordination with appropriate offices.**



## **CHAPTER 1. GENERAL**

### **1-1. PURPOSE.**

This order provides direction and guidance for day-to-day Airway Facilities (AF) operations under the administrative jurisdiction of the Federal Aviation Administration (FAA) Director of Airway Facilities. The purposes of this document include the alignment of AF operations in accordance with the strategic plan and AF concept of operations and the establishment of AF standard operating procedures. Another purpose is to ensure responsibilities are assigned to AF personnel engaged in service operations management functions and processes, reduce unscheduled maintenance, and to direct AF personnel in corrective maintenance activities in support of Air Traffic (AT) services and systems. This order provides AF with a point of control and establishes the concept of service management. This order also prescribes the information necessary to administer the AF infrastructure and will enable AF specialists to perform service management operations in a consistent and standardized fashion. In the event a conflict arises between instructions within this order and the terms of a labor union contract, supervisors shall abide by the labor union contract. Additionally, in the event a conflict arises between the provisions of this order and another FAA order, guidelines provided within this document should take precedence. Procedures established herein are critical to the functional and administrative relationships between the National Maintenance Control Center (NMCC), National Network Control Center (NNCC), General NAS Maintenance Control Centers (GMCC), Air Route Traffic Control Centers (ARTCC) Maintenance Control Centers (AMCC), Maintenance Control Centers (MCC), AF Regional Division Offices (AXX-400), System Management Offices (SMO), Work Centers (WC), and System Service Center(s) (SSC) personnel.

This order establishes requirements and criteria for notifying the NMCC of significant reductions in performance and/or full interruptions of National Airspace System (NAS) facilities and services. It also provides guidelines and procedures for requesting national engineering field support, as required. Procedures for the notification and escalation of major telecommunications interruptions are also included.

### **1-2. DISTRIBUTION.**

This order is distributed to FAA division levels within the Office of System Architecture and Program Evaluation, Flight Standards Service, Air Traffic Service and Airway Facilities Service in Washington, to the division level at the FAA Logistics Center and FAA Academy; to the division level in the Engineering, Test and Evaluation Service at the FAA Technical Center; to the branch level in the regional Air Traffic, Airway Facilities, and Flight Standards divisions; and a standard distribution to all Airway Facilities field offices.

**1-3. CANCELLATION.**

Order 6000.50, Airways Facilities NAS Operations, dated June 18, 1996 is cancelled.

**1-4. EXPLANATION OF CHANGES.**

**a. Document changes.** This revision documents changes to operational procedures. These changes modify previous procedures as requested in Regional reviews.

**b. Editorial changes.** Paragraph numbering sequences have been changed in some cases to reflect content modifications and to provide for correction of minor typographical errors.

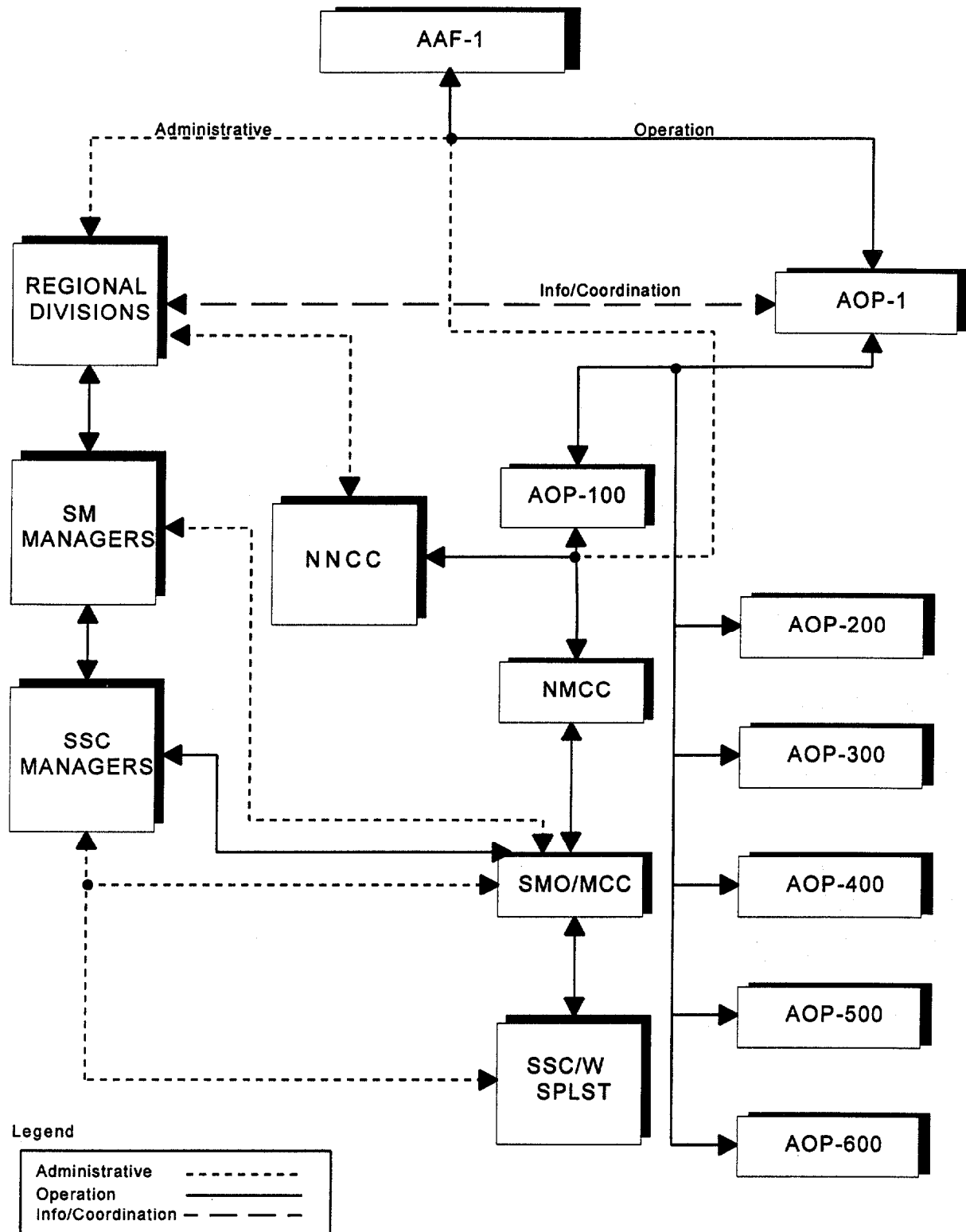
**c. Software Version Changes.** All screens have been modified to be compatible with Windows 95 display areas. A toolbar has been added to replace command buttons at the bottom of some screens. Software code from previous versions and other modifications has been completely deleted resulting in a faster running program.

**1-5. AUTHORITY TO CHANGE THIS ORDER.**

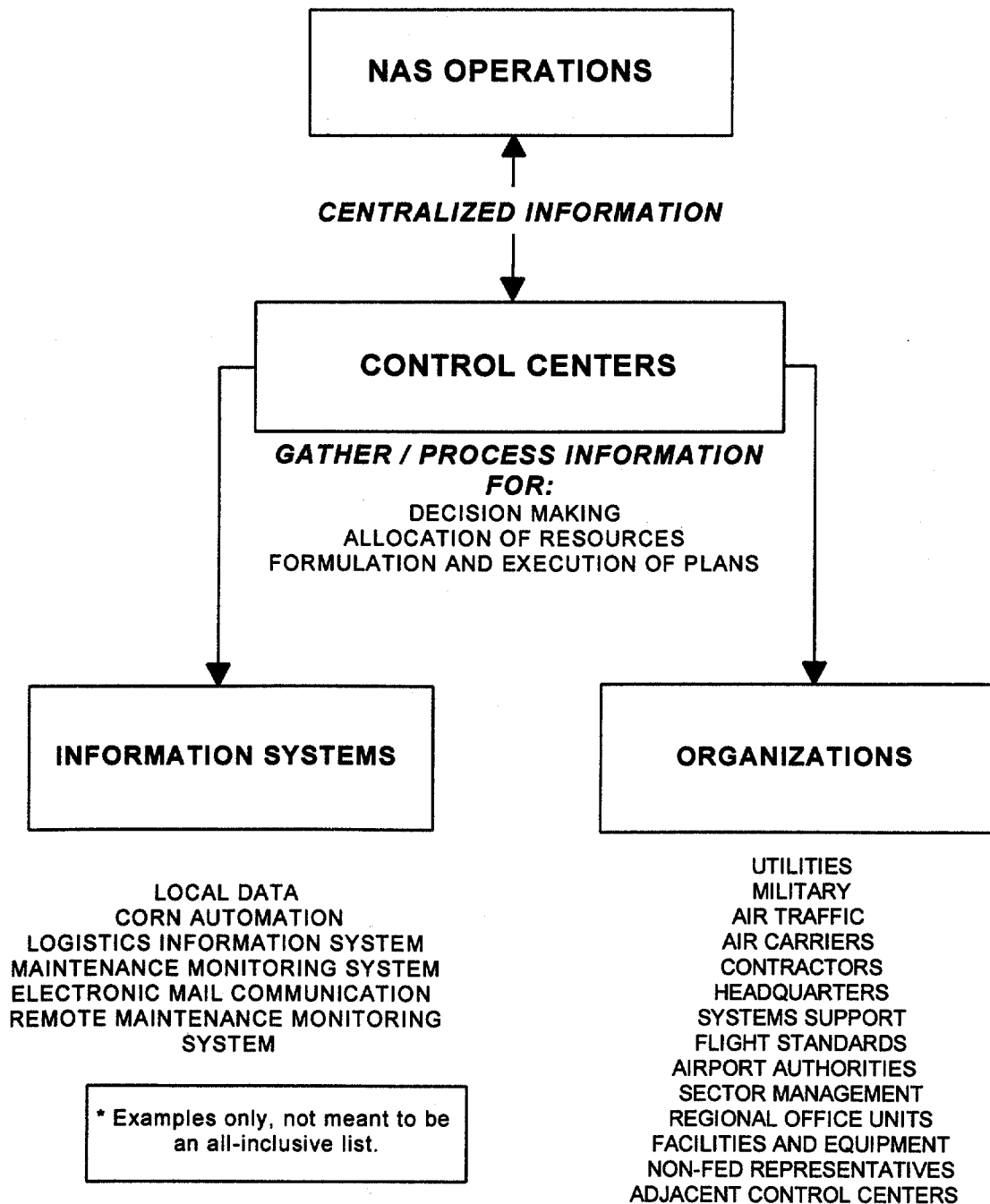
AOP-1, or designee, shall issue changes to this order. Initially, proposed changes should be implemented every six months. Later revisions will align with AT operations procedures scheduled updates. Changes are implemented to ensure guidelines, procedures, and appendices are kept current and provide personnel with the information necessary to perform NAS operations support effectively and efficiently.

**1-6. MISSION.**

The **control center** is the AF organizational entity responsible for system-level management of the NAS. Control Centers will manage, direct and prioritize operations and maintenance activities from a service management perspective, and manage the NAS infrastructure within their designated areas of control, responding to customer needs and the impact of systems and elements on NAS infrastructure services. The control center evaluates equipment performance and obtains operational status through monitoring of facilities and services, performs facility and service level certifications, and dispatches personnel with proper certification credentials and authority to accomplish facility and service restoration, if required. The control center specialists are a team responsible for system status information and performance of work processes needed to achieve overall operational effectiveness and excellence in customer services. Figure 1-1, National Maintenance Control Center Interfaces, illustrates the relationships between the control centers, their alternates, and work centers. Figure 1-2, National Airspace System Operations, illustrates typical control centers information input sources and other organizations that may be affected by the actions of the control center.



**Figure 1-1 National Maintenance Control Center Interfaces**



**Figure 1-2 National Airspace System Operations**

## **1-7. OBJECTIVES.**

The objectives of this order are to implement the AF Strategic Plan and the AF concept of operations within a standardized AF operations manual. Other objectives include:

- a. The reduction of unscheduled interruptions** and reductions in service on users of the NAS.
- b. The provision for keeping FAA management personnel informed** of significant reductions in service, thereby enabling them to prioritize and support restoration activities.
- c. Encouragement for early decisions** regarding the need for engineering support for restoration of services.
- d. The development of procedures and criteria for notification of the NMCC** of service interruptions.
- e. Procedures for notifying FAA management of aircraft accidents or emergency** situations that effect aircraft operations.

## **1-8. SCOPE.**

This order describes direction and guidance to be used for the daily AF operations of facilities and services in the NAS. It describes standard AF operating procedures and applies to all offices under the administrative jurisdiction of the Director of Airway Facilities, AAF-1. Specific regional outage notification and other unique requirements are included.

## **1-9. BACKGROUND.**

**a.** AAF-1, Automated Operations Systems Division (AOP-1), and regional AF divisions are collectively responsible for the technical functioning and maintenance of the NAS and for assuring that the NAS is efficient, economical, and responsive to AT control operational needs and requirements. To accomplish this, the number and duration of facility and service interruptions must be kept to a minimum and restoration must be accomplished in a timely and effective manner. The NMCC is responsible for coordinating and monitoring restoration activities at a national level and for keeping FAA senior managers informed of the status of the NAS.

**b.** In early 1992, the AF division initiated a structural approach to the concept of strategic planning. It was recognized that, due to changes in aviation technology plus the dramatically changing political, social, and economic environments, the FAA should re-evaluate its methods of operations. AAF-1 initiated the concept of AF strategic planning with an emphasis on re-evaluation of the existing organization, how business was conducted on a daily basis, and the

possibility of streamlining the organization to enable increased efficiency of operations. This initiative led to a concept of consolidated operations and consolidated resources.

c. In late 1992, the first AF Strategic Plan was approved and distributed. The primary strategic issue identified, based on a number of assumptions and future planning, was the need for a description of services that the FAA will be performing in the year 2010.

d. A document entitled, "AF Concept Of Operations for the Future", recommended a structure for centralized service "operations management" of the NAS. In order to accomplish this goal, the document identified a need to implement standard operating procedures within AF. This "standard operating procedure" concept responds to the changing NAS operations environment, encompasses a stronger customer orientation, and provides for a flexible, integrated information infrastructure. Ideally, partnerships are to be formed with organizations internal and external to the FAA to provide customers with seamless, end-to-end service management. These partnerships will also provide for interaction at international levels with the challenge of realizing the full potential of emerging global AT systems and services.

e. In December 1993, a work group was assigned to analyze issues associated with Remote Maintenance Monitoring System (RMMS) information processing, control center operations, and AF's transition to new operational concepts. The work group investigated issues, concerns, action plans, and schedules for transitioning the 1993 control center operations into the 2010 Operations Control Centers (OCC). As a result of these efforts, a service operations management structure for NAS AF management was developed requiring standardized control center operational procedures. This order is a direct result of accomplishments and requirements identified by the group.

#### **1-10. PROCEDURES FOR CHANGE.**

Local SSC personnel should coordinate proposed revisions with the local Systems Management Office (SMO), their regional Maintenance Automation Plan (MAP) coordinator, and the Division Manager of AOP-300 at FAA headquarters in Washington, D.C. Changes to the basic text and situation charts within this order will be coordinated with FAA Regional personnel, as needed. With the exception of local telephone numbers and approved acronyms, other changes will be submitted to the division responsible for the proposed change. All approved changes will be coordinated according to FAA document change processes. Proposed changes may be submitted via electronic media as follows:

**CC:Mail address: NAS OPS Manual**

**1-11. COLOR CODE CONVENTIONS.**

Color code conventions are being developed for this document as follows:

"Standard procedures or "Should" statements - Blue Font

"Shall" statements - Red / Bold font

**1-12. ELECTRONIC VERSION**

An electronic version of this document, which includes hyper-text links and situation charts, is available through the office of AOP-300. Facilities not receiving electronic distribution of this order or released changes should notify their respective AXX-470's.

**1-13. – 1-20. RESERVED.**



## **CHAPTER 2. NAS MANAGEMENT**

### **SECTION 1. RESPONSIBILITIES**

#### **2-1. AF Structure and Functional Responsibilities.**

Refer to the latest revision of Order 1100.2.

#### **2-2. Regional Airway Facilities (AXX-400).**

Each region shall implement control centers within the guidelines of this document. This implementation includes, but is not limited to the following items:

**a. Control Center Functions.** AF Personnel are encouraged to promote the control center concept of service management operations with the following:

- (1) All AT counterparts;
- (2) Flight Inspection Area Office (FIAO) personnel within their respective region;
- (3) Flight Standards District Office (FSDO) members within their respective region;
- (4) State and local authorities;
- (5) Non-Federal facility specialists and representatives;
- (6) Military liaison personnel;
- (7) Utility company representatives;
- (8) Civil authorities;
- (9) National Weather Service (NWS);
- (10) Other AF customers.

**b. Control Center Operations.** Personnel should ensure all AF operations and activities that could impact the NAS are coordinated through the appropriate control center in accordance with the procedures defined in this handbook.

**c. Inter-Regional Coordination.** Personnel should coordinate all regional, SMO and/or site specific AF operational procedures with other inter-regional and non-FAA organizations.

**d. System Management Office (SMO) Coordination.** Personnel should coordinate and verify SMO site preparation and equipment installation efforts.

**e. Maintenance Processor Subsystem (MPS) Compatibility.** Personnel should ensure the MPS facility and equipment are fully operational and the SMO is prepared to support the control center operational mission.

**f. Functional Capabilities.** Personnel should review and evaluate control center functional capabilities required by the regional office.

**g. Regional Communications Requirements.** Personnel should ensure the regional telecommunications requirements for control center operations are satisfied by identifying those requirements to AXX-470 for transmittal to AOP.

**h. Maintenance Management System (MMS) Files.** Personnel should monitor the accuracy of appropriate MMS validation files (cost center and location identifiers) in accordance with the guidelines contained within this order.

**i. Coordination of Documentation.** Personnel should coordinate local and regional Program Technical Reports (PTR), Hardware Discrepancy Reports (HDR), and NAS Change Proposals (NCP) with national offices.

**j. Centralized Information Systems.** Personnel should ensure control center specialists have access to RMMS functions and centralized information systems as required to perform their assigned tasks.

**k. Automated Information Systems.** Personnel should ensure control centers have access to automated information systems relating to NAS operations; i.e., F&E schedules, Airport Improvement Program (AIP) projects, technical inspection schedules, and Computer Assisted Engineering Graphics to support centralization of information systems at the control center.

### **2-3. SMO Manager.**

The SMO manager is responsible for, but is not limited to ensuring AF personnel support control center service management operations. This can be accomplished by establishing a full-time control center through SMO resources or by utilizing the control center services of another SMO.

**a. Extended Control Center Service Areas.** The control center requesting extended area services shall provide all operational information and transfer RMMS capabilities to SMO managers that agree to provide those extended services.

**b. SMO Reports.** The SMO should run appropriate reports and verify accuracy of MMS validation files.

**c. HDR and PTR Transmittal.** SMO personnel are responsible for the revision and transmittal of HDR's and PTR's.

**d. Maintenance Management System (MMS) Files.** Personnel should maintain the accuracy of appropriate MMS validation files (cost center and location identifiers) in accordance with the guidelines contained within this order.

**e. MPS Service Requirements.** The SMO manager responsible for an MPS shall designate an MPS administrator.

**f. Identification of Training Requirements.** SMO managers should ensure training requirements for control center personnel are identified, accomplished, and adequate to support control center service management functions. SMO managers should identify gaps in training to AXX-470 personnel, whom will then forward these data to AOP.

**2-3.1 MPS Administrators.** MPS administrators shall ensure all designated control centers obtain the required functionality from the MPS. Control centers shall be provided all available RMMS data pertaining to NAS facilities within their jurisdiction. MPS service requirements shall be coordinated between the associated MPS administrator, the MPS Executive Node, and the SMO manager(s). RMMS data shall be provided to the control center regardless of which MPS is directly connected to the facility. The MPS of residence shall not dictate which control center receives RMMS data. The RMMS data shall be furnished to the control center with primary monitor and control responsibility. In addition to other duties, the MPS administrator is responsible for the following items:

**a. Site Program Bulletin (SPB) Installation.** MPS administrators shall ensure the timely installation of SPBs, as approved and issued, to enable the continued functionality of control center service operations management functions.

**b. Operational Shakedown.** MPS administrators should participate in operational shakedown procedures of new control center functions in accordance with regional and national guidelines.

**c. MPS Shutdown.** Due to increasing RMMS operational requirements associated with the MPS, the MPS administrators are responsible for requesting MPS shutdowns from the Control Center.

**d. Interim Monitoring and Control Software (IMCS) and Monitoring and Control Software (MCS) Configuration.** MPS administrators shall ensure proper configuration management of IMCS and MCS software to attain optimum control center performance. The MPS Administrators are responsible for ensuring 24-hour availability of RMMS data to all control centers within their jurisdiction.

**2-3.2. Control Center Specialist Responsibilities.** Control center specialist responsibilities include, but are not limited to the following items.

**a. NAS Operations Manager (NOM).** This function includes the coordination, planning, development, and implementation of procedures and processes necessary to efficiently conduct operations and maintenance practices. Control center specialists shall have access to centralized information systems in order to prioritize work and to allocate resources while providing for continuity of service and the integrity of the NAS.

**b. Central Point of Contact.** The control center shall be the central point of contact for facility outage requests and facility status notifications, including outage summary reports. The control center specialists shall provide reporting of facilities and systems status to the NMCC, regional offices, and the SMO. The control center specialists shall coordinate AF operations activities with all involved personnel and/or organizations (e.g., AT at an ARTCC), Airport Traffic Control Tower (ATCT), Terminal Radar Approach Control (TRACON), Automated Flight Service Stations/Flight Service Stations (AFSS/FSS), and AF work centers.

**c. Operations Management Responsibilities.** Control center specialists operational responsibilities include the application of system knowledge, resources, and skills to ensure maximum efficiency of NAS operations. The principle of quality communications should be practiced. Control center specialists shall communicate, coordinate, and synchronize activities and events. Control center specialists should ensure information is gathered, processed, verified, and disseminated to all involved individuals or organizations.

**d. Technical Control Responsibilities.** Control center personnel should apply system knowledge to perform continuity of services. Facility reset and recycle capabilities should be used, through RMM where available, to ensure service availability and to facilitate remote restoration. Control center specialists should provide real-time facility and service status information (e.g., alarms and alerts), conduct performance and trend analyses, accomplish remote certification, verify system integrity, and perform predictive failure analyses. Specialists should execute and retrieve remote diagnostics to facilitate fault isolation.

**2-3.3 Work Centers and System Support Centers.** WC and SSC responsibilities include the application of resources and system knowledge to:

**a. Accomplish Maintenance Responsibilities.** WC and SSC will remain the organizational element for accomplishing on-site periodic and corrective maintenance unless otherwise designated by the SMO manager. The work center and system service centers have primary maintenance responsibility for facilities. Remote maintenance functions may be accomplished through the RMMS.

**b. Coordinate Maintenance.** All maintenance operations personnel performing maintenance activities which may impact the NAS, are required to coordinate those activities with the appropriate control center.

**c. Call-back List Review.** Each WC and SSC manager should ensure the accuracy of the MMS callback list. The control center should coordinate and disseminate callback information with the appropriate entities.

**2-4. National Maintenance Control Center.**

The NMCC is responsible for the following services:

**a. Service Interruptions.** The NMCC receives, processes, and disseminates data concerning facility service outages, interruptions, or other events that have or might have significant impacts on the NAS user.

**b. Oversight and Monitoring.** The NMCC provides national level oversight and monitoring of NAS facilities and services operational status.

**c. Briefing Senior AF and AT Management.** The NMCC provides senior AF and AT management with information about the current NAS operational status and ongoing service restoration progress.

**d. Liaison Between the AF and AT Organizations.** The NMCC serves as a liaison between the AF and AT organizations at the Headquarters level.

**2-5. - 2-33. Reserved.**

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## SECTION 2. ADMINISTRATION

### 2-34. Administrative Support.

The region or SMO shall provide administrative support to the control center. This shall include, but is not be limited to, funding, training, logistics support, human resources, hardware, software, systems maintenance, operational procedures development, procedures training, recurrent training, watch schedules, call back schedules, telephone lists, scheduled shutdowns, modifications, joint acceptance inspection (JAI) reports (including exceptions), and facility inspections.

### 2-35. Maintenance Monitor Subsystem.

The MMS system has many files that require constant maintenance and updating. The following organizations shall be assigned update responsibilities for the files listed below:

<b>FACILITIES, SERVICE, AND EQUIPMENT PROFILE (FSEP)</b>	
<b>File</b>	<b>Responsible Organization</b>
Facility and Service Screen (FFA)/Facility Power Systems (FPS)	AMPS (Manager, Program Support) SSC / MMS Coordinator
Facility Equipment (FEQ) and Facility Module (FMO)	SSC / MMS Coordinator
<i>Pre-Commission Facility File (PFF)</i>	<i>Regional FSEP Manager</i>

<b>ADMINISTRATION (ADM)</b>	
<b>File</b>	<b>Responsible Organization</b>
Administration Line Frequency (ALF)	SSC / MMS Coordinator
Administration Facility Assignment (AFA)	SSC / MMS Coordinator

Administration Associated Related (AAR)	SSC / MMS Coordinator
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### LOGS

All logging activities will be entered by personnel assigned the authority by the SMO manager.

Personnel Certification Training (PCT)	
File	Responsible Organization
PCT	SMO

Periodic Maintenance Schedule (PMS)	
File	Responsible Organization
Periodic Maintenance Master (PMM) File	SSC / MMS Coordinator
Period Maintenance Certification (PMC)	AOS
Period Maintenance Certification (PMC) and Period Maintenance Tasks (PMT)	AOS

2-36. – 2-40. Reserved.



### **SECTION 3. REPORTING**

#### **2-41. Data Entry.**

Various types of NAS analyses require accurate, consistent, and timely entry of data into an integrated information infrastructure. All users should ensure their data entries are consistent with those requirements. This data is analyzed to produce reports and statistical data which enable the FAA to manage the NAS infrastructure and, where necessary, procure or re-allocate resources according to the latest edition of order 6040.15, National Airspace Problem Reporting System (NAPRS).

#### **2-42. Interruptions.**

Equipment failures shall be properly coded and reported immediately to the control center following an interruption. In cases of interruptions resulting in operational impact, the control center should provide updates to the NMCC according to the latest edition of order 6040.15, National Airspace Problem Reporting System (NAPRS).

#### **2-43. Control Center Trend Analyses.**

The control center is a dynamic facility with a prime responsibility in the real-time operation of the NAS. The control center specialist on duty should recognize repetitious problems or outages that occur over a short period of time. Using the MMS capabilities, the control center can then provide short-term trend analyses of equipment problems during an assigned shift. These trend analyses should be generated and forwarded to the NOM.

#### **2-44. Significant Event Report (SER).**

One of the control center specialists' responsibilities is to recognize repetitious problems, outages, or significant events that may occur over a short period of time. These observations and analyses should be used to generate Significant Event Reports. The control center specialist shall notify the NOM and then forward the SER to the NMCC within 4 hours or less.

#### **2-45. Miscellaneous Reports.**

Copies of miscellaneous reports generated by the control center shall be available for distribution to local, regional, or other authorized information centers. General, day-to-day reports, and pop-up reports will be generated and distributed as directed by the NOM, or by a higher management authority.

#### **2-46. – 2-54. Reserved.**

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## SECTION 4. CONTROL CENTER OPERATIONS

### 2-55. NMCC Functions and Responsibilities.

Characteristics of the operational NMCC include high visibility, time critical response requirements, and system-level knowledge of NAS operations on a 24-hour coverage schedule. The NMCCs support function involves real-time oversight and operational status monitoring of NAS facilities and services. It is the responsibility of control center personnel to know requirements established by the NMCC through the latest edition of Order 6030.41, Notification Plan for Unscheduled Facility and Service Interruptions and Other Significant Events. The primary purpose of the NMCC is to act as a focal point for AAF-1 in managing the NAS. The NMCC provides service-level monitoring, summary reporting, and performance analyses at the NAS level.

**a. National Focal Point.** The NMCC serves as the national focal point for information pertaining to significant impacts to NAS operational events, disseminates NAS operational status, and provides maintenance progress data. The NMCC coordinates and facilitates facility and service restoration through liaison with AF field elements, the FAA Operational Support Service, the AML, program offices, and AT offices, especially the ATCSCC.

**b. National Control.** In case of a NAS service outage or degradation, the responsible control center will immediately and continually advise the NMCC of the systems status as the situation is being resolved. The control center shall advise and coordinate restoration activities directly with the NMCC at all times. When an equipment outage or other significant event involves the coordination of more than one control center for problem resolution, the NMCC will assume overall technical coordination of all involved control centers and will establish the priorities of resources needed.

**c. VIP Movement.** AAF-1 has requested personnel not to work on systems that may affect the departure, enroute, or arrival flight paths of any aircraft involving VIP movement. NMCC personnel should notify affected MCCs of VIP aircraft movements. The MCC should then contact their Regional Operations Center for additional information.

#### References:

- (1) GENOT
- (2) Air Traffic 7110.65
- (3) Air Traffic 7210.3

**2-56. NNCC Functions and Responsibilities.**

**a. NNCC/NMCC Relationships.** The NNCC shall monitor and manage the restoration of the United States of America's portion of the Aeronautical Fixed Telecommunications Network (AFTN) international telecommunications gateways. When the NNCC determines that a facility or service outage has a major impact on national and/or international AT operations, the NNCC shall notify the NMCC. In addition, the NNCC must notify the NMCC when a gateway failure occurs that may have a political impact to the FAA. Refer to the latest edition of Order 6030.41, Notification Plan for Unscheduled Facility and Service Interruptions and Other Significant Events.

**(1) Operations Schedule.** The NNCCs will operate on a 24-hour, 7-day schedule and will be responsible for coordinating the activities of all entities (Government and non-Government) who are involved with network operations and restoration activities. The NNCC should ensure the integrity of national and international telecommunications networks under its control.

**(2) Central Point of Control.** The NNCC will be the central point of control for network restoration activities including day-to-day outage requests, status notifications, and logging activities. The NNCC shall provide for the reporting of telecommunications facilities and network status to the NMCC/National Operation Control Center (NOCC). The NNCCs Data Telecommunications Control Operator (DTCO) shall coordinate network operations and direct restoration activities of all personnel and/or organizations involved with the day-to-day operations of the telecommunications networks. These will primarily be the CCs.

**(3) Operations Management Responsibilities.** The NNCC/DTCOs responsibilities include the application of system knowledge, system resources, personal skills, and training to ensure maximum efficiency of network operations. DTCOs should communicate, coordinate, and synchronize activities and services with other control center personnel.

**(4) Technical Control Responsibilities.** In addition to coordinating network restoration activities, DTCOs should be capable of providing technical expertise to personnel involved in network restoration activities. They should execute and retrieve remote diagnostics in order to accelerate fault isolation, thereby ensuring timely restoration of failed network components.

**(5) Telecommunications Network Operations.** The NNCC network servicing activities will be controlled by a Network Control Specialist and/or a DTCO located at the NNCC. The NCS/DTCOs authority includes coordination of network operations under the jurisdiction of the NNCC which may include trans-regional, national, and/or international FAA telecommunications services.

**b. Status of the National Airspace System.** In accordance with Order 6030.41, NAS status shall be reported to Washington headquarters via the NMCC. This facility will perform coordination of restoration activities with all involved control centers to provide alternate AF or AT operational strategies caused by service outages, severe weather, aircraft accident, or natural disaster.

**c. NMCC Function and Authority.** The revised AF concept of operations for the NMCC and the AF reorganization has increased the functionality and authority of the NMCC. The NMCC shall have real-time access to RMMS operational status data. Personnel assigned to the NMCC shall provide a liaison between the AF and AT within the ATC system command center (ATCSCC) in Washington. These liaison personnel will represent AF in daily operations briefings to AF and AT directors.

## **2-57. Control Center Functions and Responsibilities.**

**a. Control Center Notifications to NMCC.** The control center shall notify the NMCC and, as appropriate, regional AF managers or designees of aircraft accidents and/or unscheduled full interruption of facilities or services. This notification is to be accomplished as soon possible after initial awareness. Follow-up briefings will occur as often as required by NMCC and following successful service restoration. In the event the failure is at a remote site, follow-up briefings should occur within 30 minutes after the specialist arrives on-site. Where required by the NMCC a formal Outage Follow Up Report will be submitted, as soon as possible after the outage or as work progressed. This schedule will be determined by the NMCC. Facility and service interruptions requiring notification are as follows:

**(1) Those facilities serving an ARTCC,** daily NAS reportable airports (refer to the latest edition of Order 6040.15, National Airspace Performance Reporting System) or AFSS/FSS that are causing or have the potential for causing air traffic delays or a significant impact on normal services provided to AT facilities or to the flying public. Determination of the degree of impact can be obtained through discussions with supervisors and managers, and/or air traffic operations personnel. Facilities and services within this notification group include, but are not limited to : Central Computer Complex HOST (CCCH); Composite Flight Data Processing (CFAD); Composite Radar Data Processing (CRAD); Computer Display Channel (CDC); Display Channel Complex (DCC) at ARTCC; Terminal Automated Radar Service (TARS); Airport Surveillance Radar (ASR), Automated Radar Terminal System (ARTS); Category II/III Instrument Landing System (ILS) components at level IV or level V terminals; Interfacility Communications Switching Systems (ICSS); and automation components at AFSS/FSS. Additionally, the NMCC from time to time may include other facilities or services to be reported as requested by AAF-1.

**(2) The control center shall notify the NMCC of those facilities serving other ATCT and AFSS/FSS that are causing, or have the potential for causing, air traffic delays or a significant impact to normal air traffic services provided to AT facilities or the flying public.**

**(3) The control center shall notify the NMCC of those facilities that have become or are expected to become administratively or politically sensitive.** Facilities typically in this category are the Low Level Windshear Alert System (LLWAS), Airport Surveillance Radar (ASR), navigational aid failures during adverse weather conditions, and/or when a service failed during AT use.

**(4) The control center shall notify the NMCC of those events caused by significant natural (or man-made) disasters** such as volcanic eruptions, earthquakes, hurricanes, aircraft accidents, vandalism, or sabotage. Notification of events is to be accomplished as soon as possible.

**(5) The control center shall notify the NMCC of those events that have or may have contributed to an operational error** such as near mid-air collision. Included in the notification should be a listing of facilities and services that may have been involved, any failure or other problem identified with the facilities or ATC equipment, resolution of the operational error, date and time of evaluation or certification of equipment, as applicable.

**(6) The control center shall notify the NMCC of those facilities located at NAS reportable airports** and identified by Notice to Airman (NOTAM) as non-operational due to a flight check failure.

**(7) The control center shall notify the NMCC of those events that involve safety-related employee injuries** that may have occurred as a result of performing duties involving Government equipment. Any information regarding the nature of the injury, severity, and recommendations for preventing similar injuries should be included.

**(8) The control center shall notify the NMCC of those events that jeopardize the safety of FAA employees** while in the performance of their duties (i.e., bomb threats, fires, etc.) or the flying public. The NMCC shall notify the Control Center when upward notification goes to AAF.

**(9) The control center shall notify the NMCC of those events that involve aircraft accidents wherein FAA equipment is damaged or in use** at the time of the accident, where FAA personnel are involved, where commercial airlines are involved, or an accident that has caused a major disruption at any airport.

**(10) The control center shall notify the NMCC of those events that include incidents of unauthorized (phantom controller) air/ground communications with aircraft.**

**(11) The control center shall notify the NMCC of those events that include full-unscheduled National Airspace Data Interchange Network (NADIN IA) outages (NMCC) at either of the two NADIN 1A switches (Salt Lake City and Atlanta).**

**(12) The control center shall notify the NMCC of telecommunications systems and/or networks failures.**

**(13) The control center shall notify the NMCC of events that involve extended outages on telco, LINCOS, CCCH at an ARTCC, or ARTS at pacing airports identified in Order 6040.15 or for major telco and LINCOS outages resulting in loss of multiple critical telecommunications or loss of critical ATC services resulting in operational impact. Hourly updates may be required.**

**(14) The control center shall notify the NMCC of those events involving Aviation Weather Processor (AWP) facilities.** Notification of unscheduled outages and/or failures of the AWP at Salt Lake City and/or Atlanta will be immediately transmitted to the NMCC. Hourly updates may be required.

**b. Notification** as described in this order does not substitute for NADPRS reporting requirements according to Order 6040.15.

**c. The control center shall provide the NMCC analyst with data** generally needed to describe the equipment affected by the outage, the nature of the failure, resources applied or needed (i.e., local or regional engineering, Field Support Division, the FAA Depot), the impact on AT, and expected time of service restoration. Initial notification should not be delayed until all information is available. When the facility and service is restored, the cause of the failure, the service restoration time, and repair actions performed will be required by the NMCC. Recommendations preventing re-occurrence or subsequent occurrence at other facilities or services should be provided.

**d. Significant Event Report (SER).**

The following significant events, loss of redundancy, or outages require upward reporting via a Significant Event Report (SER):

**Evacuations** - Fire; Smoke; Bomb Threat; Weather; Hazmat, etc  
Log and make TTS+ Information Bulletin

**ARTCC / CERAP / ATCSCC / LEVEL IV and LEVEL V TERMINALS:**  
Log and make TTS+ Information Bulletin

**Total Communication Interruptions** (with service interruption)

**Total Power Interruptions**

**Radar Service Interruptions**

**Automation System(s) Interruptions**

**Hazmat / Safety** situations causing, or anticipated to cause injury to personnel or disruption of air traffic operations

**Flight Inspection Failed;** facility removed from service.

The following information is required for completion of the SER:



**SIGNIFICANT OUTAGE / LOSS OF REDUNDANCY  
REPORT**

**DATE OF EVENT**

Status Report Version / Updates

Version 1.0

**MCC:**

**A.T.C.:**

**REPORT TYPE:**    ☐ **Loss of Redundancy**  
                         ☐ **Loss of Service**  
                         ☐ **Other Upward Reportable Event**

**DAY / DATE:**

**FACILITY INCURRING OUTAGE:**

**TIME and DURATION OF OUTAGE**

**IMPACT to AIR TRAFFIC OPERATIONS:**

**AIR TRAFFIC DELAYS ENCOUNTERED:**

**EXECUTIVE SUMMARY:**

**DETAILED SEQUENCE OF EVENTS:**

DESCRIPTION	LOCAL TIME

**CAUSE OF OUTAGE:****POLITICAL INTERESTS:****MEDIA COVERAGE:****RELATED EVENTS:**

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**ATC AREA MANAGER**

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**MCC NOM\*\***

**\*\* CLEAR WITH R.O. OPS CENTER BEFORE DISTRIBUTING (4 HR LIMIT)  
(I:\MCC\_LOGS\OUTREP.DOC) CC TO MSO, SM / OPS MGR RESPONSIBLE FOR  
THE FACILITY, AS WELL AS THE SM / OPS MGR & ATC RESPONSIBLE  
FOR THE SERVICE, OTHER MCC INVOLVED.**

**2-58. WC and SSC Functions and Responsibilities.**

The WC and the SSC shall notify MCC specialists of significant events including interruptions of facilities or services occurring in the WC and SSC areas of jurisdiction. Accurate and timely information is required in order to formulate and execute plans to ascertain operational availability. It is essential that AF management and others be kept advised of equipment outages and other pertinent events and/or activities which may be of interest to the flying public. The following items are some examples of reportable significant events and highly critical facilities or service outages:

- (1) All facilities and services serving ARTCC's.
- (2) All facilities and services serving ATCT and AFSS/FSS.
- (3) Situations that have become or are expected to become administratively or politically sensitive.
- (4) Situations that are caused by significant natural or man-made disasters.
- (5) Situations that have or may have contributed to an operational error.
- (6) Facilities to which a NOTAM has been issued as a result of failing a flight check.
- (7) All significant safety related employee injuries as a result of performing duties.
- (8) Any incidents or events jeopardizing the safety of FAA employees.
- (9) Any aircraft accident or incident where FAA equipment is damaged or in use at time of accident or incident, where FAA personnel are involved, or disruption of services at any airport.
- (10) Any incidents of unauthorized phantom controllers on FAA frequencies.
- (11) Full unscheduled NADIN IA outages at either of two switches.
- (12) The control center shall be advised of any unscheduled outage that involves any air traffic control support system or facility not discussed within this document.
- (13) For long-term restoration activities, daily reports are required when there is a change of system status.

(14) Notifications of equipment changes or status to control centers do not preclude National Airspace Performance Reporting System (NAPRS) reporting requirements.

(15) The work center should provide updates to the MCC for extended outages involving the CCCH at ARTCCs, ARTS at pacing airports, major telecommunications outages resulting in loss of multiple critical telecommunications, and for critical ATC services interruptions that result in operational impact.

**2-59. Reserved.**

## SECTION 5. AIRWAY FACILITY AIRCRAFT ACCIDENT OR INCIDENT PLAN

### 2-60. General.

This paragraph provides general information contained in other handbooks and orders which should be referenced for additional guidance and direction concerning the duties and responsibilities of AF personnel following an aircraft accident or incident. The National Transportation Safety Board (NTSB) has been designated by law as the agency responsible for determining the probable cause of an aircraft accident. The actual investigation may be conducted by either a representative of the NTSB or the FAA. Any AF personnel participating in the initial phases of the investigation of facilities or having knowledge of facility performance pertinent to the investigation may be called upon to attend a hearing or may be asked to provide a deposition or a statement under oath.

The AF is responsible for the evaluation and documentation of the technical performance of the facilities which may have been involved in an accident. This requires that facility data be obtained and recorded in logs, forms, and other automated formats. These recorded data are official documents and, as such, may be used by an aircraft accident investigation board in the determination of the involved facilities operational status at the time of the accident. Guidance has been provided by the latest editions of Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting, Order 6000.48, General Maintenance Handbook for Automated Logging, Order 6000.15, General Maintenance Handbook for Airway Facilities, and local directives. The control center should be the focal point in gathering and documenting accident or incident information as well as providing notification and briefing data to appropriate personnel.

**a. Control Center Responsibilities.** Following receipt of notification of an aircraft accident or incident, it is the responsibility of the control center to initiate immediate action as follows:

**(1) Directives.** The control center shall perform response and coordination procedures per national, regional, and local area directives.

**(2) Prepare Worksheet.** The control center shall prepare a worksheet for gathering and recording whatever preliminary aircraft and incident information is available from the regional communications center, the AT personnel making the initial report, or the reporting source.

**(3) Notification of Officials.** The control center shall notify appropriate officials per FAA directives.

(4) **Logging.** The control center shall follow Order 6000.48 which outlines requirements for automated logging procedures to be followed immediately after an aircraft accident or incident.

(5) **Coordination.** The control center shall coordinate operational requirements with AT managers, the airport manager, and flight check personnel, and other designated personnel.

(6) **Assistance.** Upon completion of the accident or incident investigation, the control center shall coordinate and assist the SMO with any additional administrative activities.

**b. SMO / SSC Responsibilities.** These are listed as follows:

(1) **Directives.** The SSC / SMO shall accomplish procedures according to national, regional, and local area directives.

(2) **Notification.** Upon learning of an aircraft accident that has occurred at a location where there are no assigned AT personnel, the AF personnel shall immediately notify the responsible control center, immediate supervisor, or SMO management personnel.

(3) **Technical Evaluation.** The SMO shall provide technical evaluations, as required, upon request by the responsible control center or by any designated Airway Facilities Aircraft Accident Representative (AFAAR).

(4) **Logging.** Logging procedures are to be performed according to Order 6000.48 which outlines requirements for automated logging procedures applicable to an aircraft accident or incident.

**c. AT Facility Personnel Responsibilities.** AT facility personnel receiving the first report of an aircraft accident or incident are responsible for notifying the responsible control center according to the latest revision of AT orders and the AT handbook.

## **SECTION 6. SECURITY**

### **2-61. Facility Security.**

The latest edition of Order 1600.6, Physical Security Management Program, establishes standards for the physical security and safeguarding requirements of FAA facilities and assets. The level of security protection for a particular facility shall be determined by the facility manager in conjunction with the regional or center Servicing Security Element (SSE). Facility criticality shall be determined by significance of operations performed in support of the NAS and/or support to national security. Specific levels of protection for FAA facilities and implementation guidance for facility managers is contained in the latest edition of Order 1900.1, FAA Emergency Operations Plan.

### **2-62. Information Security (INFOSEC), Communications Security (COMSEC), and Operations Security (OPSEC).**

All personnel should be aware that some information they use and/or disseminate is classified and/or sensitive. Regardless of how information is transmitted, i.e., data link, voice telephone, or written communications, all employees shall remain conscious of the sensitive nature of information that is shared and shall take appropriate actions to ensure that security levels are not compromised. Further guidance can be obtained by referring to the latest editions of Order 1600.2, National Security Information, Order 1600.8, Communications Security.

### **2-63. Airfield Security.**

FAA personnel will not normally become involved in the actual determination of applicable security levels of any given airfield. This determination is the responsibility of the local airport authority. However, FAA personnel should retain a current listing of all appropriate government agencies and/or officials with whom to report incidents or with whom to coordinate protective measures. Enhanced levels of protection for FAA facilities located on or near airports should be coordinated with the responsible FAA SSE. To ensure an appropriate level of security protection for FAA facilities, refer to Order 1900.1.

### **2-64. Contractor and Other Non-FAA Building Security.**

The appropriate level of security for FAA personnel, assets, equipment or services shall be maintained within non-FAA buildings. It is the responsibility of each region to identify all contractor and other non-FAA building within their area of responsibility and to ensure the appropriate levels of security measures are maintained.

**2-65. FAA Building Security.**

Facility managers are responsible for the security of their facility, the protection of FAA personnel, assets, and operational capability of the assigned facility.

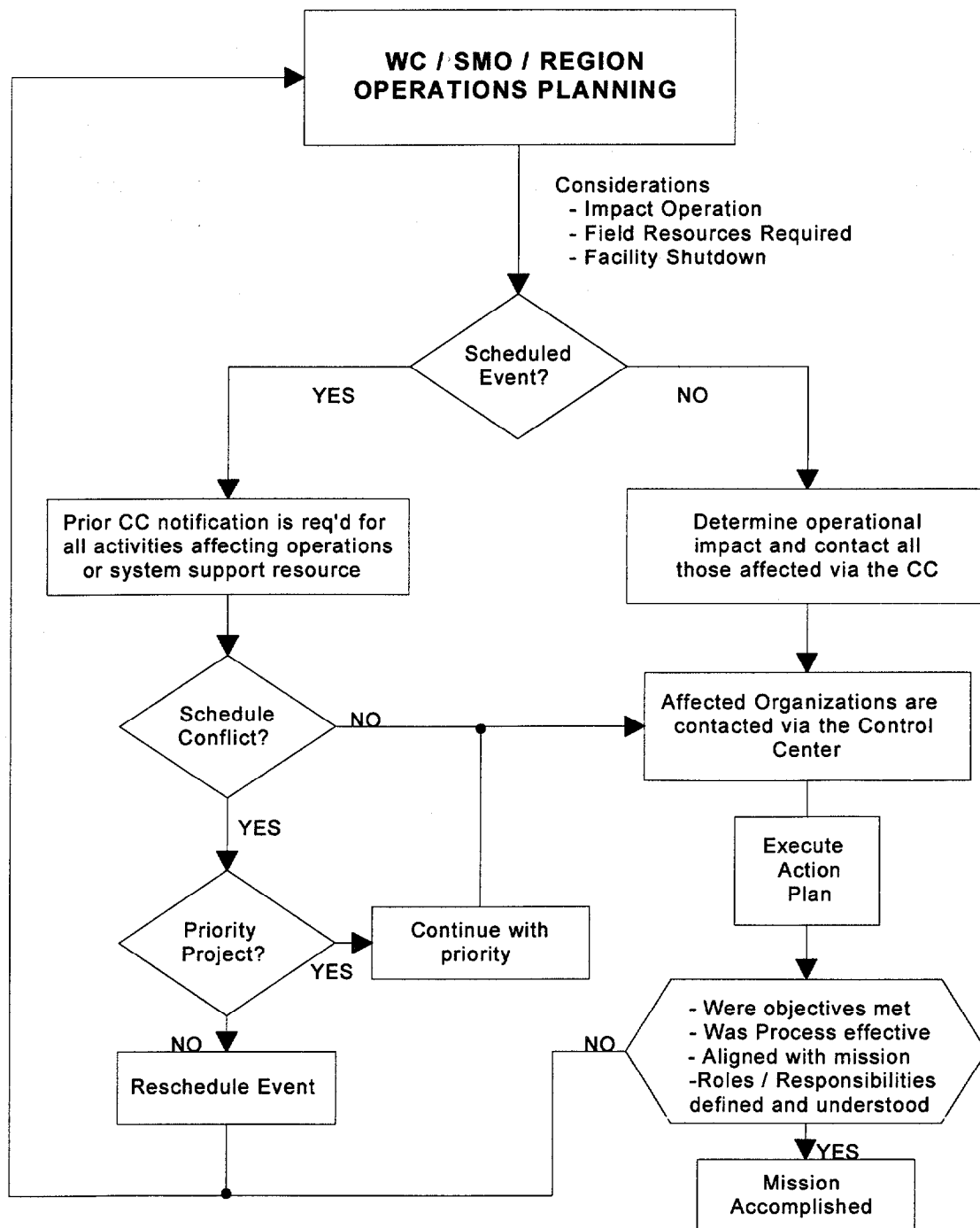


## **CHAPTER 3. PROCEDURES**

### **SECTION 1. CONTROL CENTER OPERATIONS**

#### **3-1. General.**

Control centers should have the ability to monitor the operational performance of all respective facilities and services. The control center specialist should have a working knowledge of various facilities as they pertain to the overall daily operations of the NAS. The control center specialist should consider the NAS inter-dependencies and potential operational conflicts when scheduling or coordinating system and service outages. The responsible control center shall use established procedures to certify ATC support equipment and services which are provided to the user. Figure 3-1, Control Center Operational Interface, illustrates a typical control center and its operational connectivity.

**Figure 3-1 Control Center Operational Interface**

## **SECTION 2. NATIONAL NETWORK CONTROL CENTER (NNCC)**

### **3-2. General.**

a. The NNCC has the diagnostic capabilities to determine the location and cause of network communications faults. If the NNCC's Network Control Specialist (NCS) determines that a communications problem is associated with a common carrier (TELCO) or a non-FAA user, the NCS will take responsibility for recording the outage and coordinating the restoration of service. The NCS will notify the responsible control center of communications systems failures. The NCS will notify the control center when the problem is corrected and communications services are fully restored. The control center is not required to take any further action as a result of these notifications. The NNCC is responsible for monitoring of the WMSCR, AWP, NADIN I and NADIN II communications backbones. The NNCC also acts as national monitor for the ASOS, although the Atlanta ARTCC has the controlling computer.

b. If the NCS determines that the fault resides within an FAA facility, the NCS will notify the control center under whose responsibility the FAA facility resides. The responsible control center will record the outage and coordinate failure analyses and repair of the failure. The responsible control center will notify the NNCC when the communications failure is corrected. The NNCC will then restore and re-establish full communications services within the NAS.

c. NNCC personnel will be responsible for logging network (circuits) outages according to Order 6040.15.

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### **SECTION 3. MONITORING AND CONTROL**

#### **3-3. General.**

The control center shall monitor and control all available RMMS automated and assigned facilities to ensure the quality of services provided, analyze system data, determine system performance, respond to equipment alarms and maintenance alerts, and to immediately identify any system deterioration. Those facilities without RMMS capabilities should be monitored by alternative means; e.g., pilot reports, air traffic reports, and by direct observations. System performance parameters not included within the RMMS capabilities should be reported to the MCC. The MCC will then forward that information to the responsible control center(s) and SSC, as applicable. AF control centers shall coordinate any maintenance activities with AT personnel.

#### **3-4. Failure Detection.**

When failures are detected, the control center shall validate the failure, notify all appropriate users, and shall coordinate with AT operations prior to initiating maintenance actions. Coordination of restoration of services shall be accomplished between control centers and the NMCC if more than one control center is involved. Regional boundaries do not limit control center NAS service restoration activities. However, the control center specialist should be cognizant of different regional timeframes required for reporting of failures, restoration of services, and interdependencies of equipment.

#### **3-5. Control Center RMMS Commands.**

The control center shall have the ability to perform a variety of remote control functions via RMMS commands, when available. However, the control center shall not perform any functions that may alter certification parameters unless an on-duty specialist possesses current certification authority for that type of facility. Executed control commands shall be logged in accordance with Order 6000.48, and Order 6000.15. The appropriate AF work center shall be notified.

#### **3-6. Remote Certification.**

Remote certifications may be performed based on review of RMMS data by a NAS specialist possessing system certification authority.

#### **3-7. Engine Generators.**

**a. Remote Commands.** When notified of a loss of commercial power or the possibility of severe weather conditions which could cause facility interruptions, the control center specialist should use remote commands, when available, to place the standby generator power into service.

**b. Power Transfer.** Transfers to stand-by generator power shall be coordinated with the appropriate AT facility and with AF WC and/or SSC having maintenance responsibilities.

**3-8. Weather Monitoring.**

**a.** In optimum situations, control centers should be equipped with a weather graphics display to monitor weather changes, to assess adverse weather effects on facility performance, to aid specialists travel, and to determine the necessity for implementing any preemptive environmental adjustments on equipment or facilities. When analyses indicate impending adverse weather situations may affect facility operations or maintenance activities, the control center should relay severe weather information to appropriate personnel.

**b.** The control center should consult with other nearby ATC facilities to determine their plans for dealing with the pending adverse weather before implementing preemptive changes to local equipment or facilities.

**3-9. – 3-12. Reserved.**

## SECTION 4. COMMUNICATIONS AND COORDINATION

### 3-13. General.

**a. Communications and Coordination Activities.** In order to enhance AF operations, the control center serves as the central point of contact for maintenance and restoration activities for the NAS in the event of a facility or equipment failure. The control center should coordinate all AF activities concerning the NAS with the following external organizations if they are impacted: Local port authority; local airport manager or operator; National Weather Service; military representatives, Federal Marshal offices, Secret Service offices, Federal, State, or local law enforcement organizations. All activities or events where there is a change in facility status or there is potential for a change in facility status, should be reported to the responsible control center.

**b. Scheduled Interruption Requests.** Facilities that have 24 hour coverage should have the AF personnel coordinate scheduled shutdowns with AT and obtain the concurrence of the MCC. Requests for short term facility and service interruptions shall be coordinated through the responsible control center by 1400 hours (local time) a minimum of one day before the scheduled interruption. Exceptions may be allowed due to adverse weather considerations, availability of runways, availability of air traffic support services, an air traffic emergency, or other events. Upon receipt of a scheduled interruption request, the control center specialist shall coordinate the request with the primary AT user to determine a mutually agreeable time for scheduling the proposed interruption. The control center specialist should advise other organizations that may be involved or impacted by the temporary loss of service. In the case of a request for an outage of greater than 24 hours, refer to Section 5. Facility Commissioning, Decommissioning, and Shutdown (CDS) paragraph 3-21 (i).

**c. Unscheduled Outages.** All unscheduled outages that may impact AT operations shall be reported to the MCC by AF, AT, Airport Managers, and others at the first opportunity in accordance with the latest edition of Order 6030.41. The MCC shall notify the NMCC if an unscheduled outage meets the requirements for outage reporting.

**d. Information Coordination.** SSC and WC personnel shall advise the responsible control center of any politically sensitive or significant event that could cause another organization or individual to contact the control center for information regarding that event.

**e. AT Coordination.** When notified by AT personnel of a system malfunction, the control center specialist and AT will determine when to initiate corrective action. However, if there is a total failure of an ATC system or if an emergency situation exists, corrective action to restore NAS operations should be taken immediately. In cases of intermittent failures, the control center should be notified prior to any attempt to restore ATC support services.

**3-14. Flight Inspection Coordination.**

The FIAO should coordinate all flight inspections with the responsible control center for the area where the flight inspection is planned. The control center should then coordinate flight inspection activities with the appropriate field organization utilizing the most efficient and available communications tools such as teleconferencing. The control center shall ensure that all parties involved with a flight check (e.g., FIAO, ATC personnel, WC, SSC, and other control centers) are kept informed of the current status of the flight check. Flight inspections associated with aircraft accidents and incidents shall be performed under the requirements of the latest edition of Order 8020.11, Aircraft Accident and Incidents Notification, Investigation, and Reporting.

**NOTE:**

The local SSC supervisor and/or specialist may be consulted for early inputs to the scheduling of routine flight inspections since they are in direct contact with the SSC scheduler. The control center should distribute the weekly flight check schedule released by the Flight Inspection Field Office (FIFO).

**a. Flight Inspection Schedules.** The control center shall notify other WC's and SSC's in advance of scheduled flight inspections to enable their compliance with preflight inspection and periodic maintenance requirements. The responsible control center shall coordinate and disseminate flight inspection schedules to WC's and SSC's.

**b. Flight Inspection Procedures.** The responsible control center shall ensure that all parties associated with a flight inspection are informed of any conditions affecting the inspection. WC and SSC personnel shall inform the control center of any delays expected or unexpected cancellations prior to the commencement of a scheduled flight inspection.. Facility conditions such as peak traffic times, remote locations, and adverse weather considerations should be communicated through the responsible control center directly to FIAO in order to maximize the availability of flight inspection aircraft and AF maintenance personnel.

**c. Special Flight Inspections.** If a flight inspection is required due to an aircraft accident, or because of a handbook requirement after equipment restoration, the work center and/or system service center shall contact the responsible control center and provide the following information:

- (1) Facility type and location.
- (2) Periodic maintenance action taken.
- (3) Facility parameters involved.



(5) Date of last flight check.

(6) Determination if an extended equipment outage may be required due to flight inspection coordination requirements.

**d. Notification of NMCC.** The responsible control center shall notify the NMCC on the plans and progress of flight inspections related to aircraft accidents in accordance with Order 6030.41.

**e. Flight Inspection of Non-Federal Equipment.** The Flight Inspection Central Operations Office (FICO) located in Oklahoma City (405) 954-9781, has the authority to approve, schedule, and dispatch aircraft/crew for accomplishing periodic flight inspections of non-federal facilities.

### **3-15. Control Center Specialists Travel.**

For safety and maintenance management purposes, control center specialists shall, when dispatched by the control center, coordinate departure and arrival times with the responsible control center. If an AF Specialist's Callback is required to perform a service restoration at a remote site, the control center shall remain cognizant of the location of the Specialist during travel. The control center shall issue weather advisories, as appropriate, to assist Specialists traveling to and from remote sites.

### **3-16 – 3-20. Reserved.**

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## SECTION 5. FACILITY COMMISSIONING, DECOMMISSIONING, AND SHUTDOWN

### 3-21. Facility CDS Committee.

**a. Committee Chairperson.** The Manager or his designee, Airway Facilities Division, AXX-400, shall serve as Chairperson of the Facility CDS Committee. The Chairperson will establish the following:

**(1) Committee Meetings.** The Committee Chairperson should establish time and dates for all committee meetings.

**(2) Committee Meeting Agenda.** An agenda will be provided by the Chairperson for discussion of proposed facility actions and related issues.

**(3) CDS Report.** The Committee Chairperson should publish and distribute the facility CDS report within 5 working days after the regularly scheduled meeting each month.

**(4) Facility Improvements.** The Committee Chairperson should provide notice to the regional Public Affairs Officer regarding major facility improvements or new facility commissioning approximately 30 days prior to their effective date.

**b. Committee Membership.** Each division listed below should, on receipt of this order, assign and forward to the Committee Chairperson (AXX-400) the name of the committee member(s) and alternate(s) who will represent the respective division on the committee. Identification of the designated representative to be the focal point for all facility shutdowns, commissioning, and decommissioning coordination within the respective office should be consistent with FAA orders. As a minimum, the Facility CDS Committee should consist of one or more representatives of the following:

Military Liaison  
Airports Division  
Air Traffic Division  
Flight Standards Division  
Airway Facilities Division

#### NOTE:

In order to maintain continuity, rotation of personnel through this assignment should be held to a minimum.

**c. Member Responsibilities.** The following paragraphs provide minimum responsibilities for the Committee Chairperson, committee members, and individuals:

**(1) Meeting Attendance.** Committee members should attend all meetings.

**(2) Proposed Actions.** Normally, committee members are responsible for submission of agenda items on facility shutdowns planned by the organizations that they represent at least 60 days in advance of the proposed action.

**(3) Official Representative.** Committee members may serve as the official representative of their respective organization for coordination of proposed facility shutdowns, commissioning, and decommissioning, or proposed changes to previously approved schedules in coordination with the Flight Procedures Office (FPO).

**(4) Action Items.** Committee members are responsible for the initiation, coordination, and follow-up on actions within the purview of his or her organization that are necessary prior to, or caused by, actions of the Facility Shutdown, Commissioning, and Decommissioning Committee.

**(5) Correspondence.** Committee members are responsible for providing the Committee Chairperson with copies of related correspondence and messages sent to the National Flight Data Center (NFDC) for publication within the Airman's Information Manual (AIM).

**(6) Shutdown Coordination.** Committee members should coordinate proposed and approved facility shutdowns and commissioning with representatives of the region, and the military or commercial industry that may be affected, when possible.

**d. Individual Responsibilities.** Individual responsibilities for each committee member are as follows:

**(1) AF Members.** The AF members shall ensure proper coordination is accomplished within the Airway Facilities organization (field and regional offices). This person must furnish details of the intent and purpose of the temporary shutdown of commissioned facilities in accordance with the latest edition of Order OA 6030.5, Service Availability of Commissioned Facilities of the National Airspace System. The AF member of the Facility Shutdown, Commissioning and Decommissioning Committee must notify the NMCC/NOCC of the planned and actual facility commissioning/decommissioning date and time per Order 6040.15.

**(2) Flight Standards Members.** The Flight Standards members, while working with the FPO, should coordinate with the NFDC through the FIAO.

**(3) Airports Division Members.** The Airports Division members should submit agenda items on airport construction projects which will affect airport facility operations or commissioning. The Airports Division member may also furnish non-agenda information on airport construction projects which could affect facility operation or commissioning including determination of effects that may be pending. This member should furnish proposed commissioning dates and information concerning facilities installed under the FAP program to the NFDC according to the latest revision to Order 7900.2 Reporting of Electronic Navigation Aids and Communications Facilities Data to the NFDC.

**(4) AT Members.** The AT members should accomplish decommissioning coordination of AT facilities and services in accordance with the latest edition of Order 1100.1 Aviation Standards Organization Handbook including notification to the NFDC. The AT committee members should prepare facility shutdowns and commissioning documents according to Order 7900.2. These individuals should furnish "approval for decommissioning" documents to the committee.

**(5) Facility Managers.** Normally, facility managers or any FAA organization that may be planning activities that would require a facility shutdown exceeding 24 hours are responsible for contacting the respective regional office to propose and provide facility shutdown request forms to the committee at least 60 days in advance of the shutdown date. This should permit appropriate notifications to be issued to the public.

**NOTE:**

Commissioning/decommissioning requires minimum 5 months notice to the committee.

**(6) Members of Other Organizations.** Other organizations represented on the committee are responsible for appointing fully qualified members and alternates to represent them in accomplishing the duties of the committee.

**e. Committee Schedule Authority.** The committee is authorized to coordinate, approve, and publish schedules for commissioning and decommissioning activities.

**f. Commissioning Authority.** Only the Facility Shutdown, Commissioning, and Decommissioning Committee shall provide the authority for commissioning of new FAA facilities including air navigation facilities. However, the actual commissioning of the facility is the responsibility of the SMO manager.

**g. Temporary Shutdown of Commissioned Facilities (more than 24 hours).** The Facility Shutdown, Commissioning, and Decommissioning Committee shall provide the authority for temporary shutdown of commissioned navigation or ATC facilities for 24 hours or more.

**h. Decommissioning Authority.** The Facility Shutdown, Commissioning, and Decommissioning Committee shall provide the authority for decommissioning of existing facilities after that decommissioning is approved by the Administrator or the Director in accordance with the latest edition of Order 1100.1.

**NOTE:**

Facility shutdowns that occur on a routine basis, for systems needing mechanical checks (e.g., radar/VOR/communications), is the responsibility of the SMO manager.

**i. Outage Notifications.** Regions have specific operational requirements that may be unique. The following requirements pertain to specific regional outage notification requirements:

<b>LOCATION</b>	<b>NOTIFICATION</b>
Alaskan Region	24 Hours
Central Region	8 Hours - consecutive days
Eastern Region	All scheduled Outages
Great Lakes Region	24 Hours
New England Region	24 Hours
Northwest Mountain Region	8 Hours
Southern Region	8 Hours (consecutively), If > 3 Days
Southwest Region	24 Hours
Western Pacific Region	24 Hours

**3-22. Typical Format for Submission of Analysis of Planned Interruption.**

As a minimum, the format for submission of analyses of a planned interruption should contain the following items:

- a. Are multiple shifts or overtime possible alternatives?
- b. Are replacement or substitute facilities available?
- c. Is there a possibility of scheduling the shutdown in such a manner that the facility would be shut down only during those periods when work in progress would least affect facility usage?
- d. Can the work be scheduled during hours of light traffic and/or minimum impact?
- e. Are there alternate routes or procedures available?
- f. Will a need exist for use of a temporary facility such as a VOR, Non-Directional Beacon, portable ATCT, etc.?
- g. Are there any other feasible alternatives?

**3-23. Suggested Format for Submission of Agenda Items:**

**Note:**

The following data may be provided by any practical means including electronic media (E:Mail).

Date: \_\_\_\_\_

TO: XXX-470

INFO: XXX-600 XXX-200

SUBJECT: Agenda Item for Facility Shutdown, Commissioning, Decommissioning Committee

- 1. Facility Type
- 2. Location Identifier
- 3. Airway Facilities SMO
- 4. City
- 5. State
- 6. Action (Shutdown, Commissioning, Decommissioning )
- 7. Effective Date(s) of Action
- 8. Runway Data
- 9. Equipment Owner

10. Flight Check Requirement
11. Project (F&E, SMP, SMO, etc.)
12. Description of Project/Reason for Shutdown Remarks

Submitted by: \_\_\_\_\_

Name    Routing Symbol

### **3-24. Facility Shutdown, Commissioning and Decommissioning Procedures.**

**a. Meeting Date.** As a minimum, a regularly scheduled meeting of the Facility Shutdown, Commissioning, and Decommissioning Committee should be held once per quarter, or more often if necessary.

**b. Facility Schedule Publication.** A facility shutdown, commissioning, and decommissioning schedule shall be published and distributed following within 5 working days after each regularly scheduled committee meeting. As a minimum, the following distribution should be provided:

AXX-50  
AXX-400  
AXX-500  
AXX-600  
AXX- FIAO  
Control Centers  
AT Facility Managers  
Military Representatives  
Others By agreement

**c. Planned Interruptions.** Documentation analyses of proposals for the planned interruption of commissioned facilities in excess of 24 hours should be prepared by the AXX-400 representative. The documentation shall comply with the latest edition of Order OA 6030.5.

**(1) Scheduled shutdown.** Organizations wishing to schedule a facility shutdown, commissioning, or decommissioning should contact their respective committee representative..

**(2) Agenda Items.** Committee representatives shall submit agenda items to the chairperson no later than 10 days prior to the meeting. Representatives of the military service stationed at the regional headquarters should submit their agenda items 10 days in advance of the



scheduled meeting to the Air Traffic Division, AXX-500. The chairperson shall distribute the proposed agenda to the committee members prior to the meeting.

**(a) Short Notice.** Proposed shutdowns, commissioning, or decommissioning of facilities which cannot be foreseen in time to permit 60 days' notice for shutdowns and 150 days for commissioning/decommissioning should resubmitted with an explanation for waiving the normal notification requirements. The Chairperson will then coordinate the "short notice proposal" with the committee members for appropriate action. The chairperson should publicize that action through an addition to the next regular release of the schedule or by special addendum.

**(b) Scheduled Facility Shutdown (24 Hours or More).** Facilities proposed to be shutdown for 24 hours or more, or proposed for commissioning or decommissioning, should be placed on the committee's agenda 60 days prior to the scheduled date, if possible, or 150 days prior to the action except as follows:

**1 Facility Shutdown (Less Than 24 Hours).** Routine scheduled shutdowns of less than 24 hours duration need not be brought to the committee's attention. Although not a requirement, for planning purposes the committee should be notified of outages planned for less than 24 hours duration.

**2 Radar Shutdown.** Normally, any scheduled radar facility shutdown requires an 8-day prior notice to the AT facility manager controlling the radar facility.

**3 Emergency Shutdown.** Emergency shutdown of facilities that are discovered to be operating "out of tolerance" or that are experiencing malfunctions do not require the committee's approval.

**4 Daylight Shutdowns for Unanticipated Work.** Daylight-only shutdowns on successive days to accomplish unanticipated work do not require the committee's approval.

**d. Privacy Act.** The control center shall safeguard the callback list against violations of the Privacy Act.

**e. Aircraft Accidents, Incidents, and Failed Flight Inspection.** These types of activities tend to be very sensitive. Utmost consideration should be used when performing coordination and administration of these kinds of restorations. Refer to the latest editions of Order 8020.11 and OA P 8200.1 Flight Inspection Manual. A control center must notify the NOCC/NMCC on the plans and progress of flight inspections that are related to aircraft accidents, in accordance with order 6030.41. AAF-1 approval is required prior to scheduling flight inspection of non-federal equipment.

**f. Remote Certification.** Remote certification shall only be performed by a control center or WC/SSC specialist who possesses certification authority for that type of facility. The certification shall be logged in accordance with the latest edition of Order 6000.48.

**g. NOTAM.** A NOTAM shall be requested from the appropriate AT facility by the control center when a scheduled shutdown has been approved and/or when a facility/service interruption has been detected. The control center specialist shall coordinate restoration with the WC and/or SSC responsible for the facility or service.

**3-25 - 3-55. Reserved.**

## **SECTION 6. MAINTENANCE CONTROL CENTER FOLD-DOWN**

### **3-56. Transfer of Control.**

a. The primary control facility is the organizational entity which has the responsibility for maintaining the integrity of the service provided and shall be designated as the responsible control facility for Monitoring and Control Software (MCS) purposes. The responsible control facility exercises its control to ensure the integrity of the service through both operational and technical direction of a designated facility. A secondary control facility is a designated backup.

b. The control center (user of service) is the primary control point for MCS purposes. Transfer of control between primary and secondary locations (SMO monitor or callback responsibility) shall be coordinated and executed by actions issued by the control center. Prior to transfer of facility control, the requesting facility shall obtain approval from the control center. This includes transfer of control to and from the site. At no time shall more than one control center exercise control of any facility. The transfer of control between primary and secondary facilities may be provided for the purposes of testing, troubleshooting, or trend analyses. Control of a facility or service may be assumed by field specialists, other control centers, national, regional, or SMO support personnel by properly coordinating the transfer through the responsible control center. Personnel receiving control of an operational facility shall inform the responsible control center of any facility or equipment status change involving ATC support services. Control of the facility shall be relinquished to the responsible control center upon request. In the event of a planned control center fold-down, each MCC/OCC shall notify the NMCC/NOCC of the fold-down facility identification and the fold-down facility telephone number.

### **3-57. Total Transfer of Control (Fold-Down).**

Control center fold-down procedures are to be initiated when a total system failure or other event prevents the responsible control center from performing its normal support operations, systems monitoring or control functions. Automated systems such as the MMS or control center databases should be used as much as possible to support the fold-down procedure. Fold-down operations should be established and agreements should be pre-arranged with alternate or secondary control centers because loss of voice communications can prevent the responsible control center from informing involved organizations of facility status changes.

### **3-58. Procedures for Total Transfer of Control (Fold-Down).**

Specific procedures for executing total transfer of control or fold-down (i.e., combining of all responsible control center operations to an alternate or secondary control center) are provided within this order text and software program situation charts. The primary control center fold-down to a secondary shall be transparent to ATC support operations and any other control center contacts. Control center fold-down procedures shall include:

**a. Transfer of RMMS Capabilities.**

**b. Transfer of Telecommunications.**

**c. Transfer and Exchange of Information.**

(1) Call-back reports.

(2) Contacts listings.

(3) Current facility status, field activities, and anticipated events or activities (flight checks, scheduled outages, etc.).

**3-59. Transfer of Technical Control of RMMS Functions.**

Transfer of technical control of RMMS functions which are normally under a control center's responsibility to a secondary control center, shall occur when RMMS functions cannot be performed at the responsible control center. In this case, unlike fold-down operations, only the RMMS technical control is transferred to the secondary control center.

**3-60. – 3-62. Reserved.**

## SECTION 7. DISASTER MANAGEMENT

### 3-63. General.

This section provides guidance and instructions on the responsible control centers actions to be taken concerning a natural disaster or catastrophic ATC system failures. This section establishes policies and procedures, and assigns responsibilities for disaster preparedness, damage mitigation, and AF response requirements.

### 3-64. Natural Disasters.

This section provides guidance and direction concerning the duties and responsibilities of AF personnel involved with natural disasters that could affect personnel and/or FAA equipment. The SMO should develop a Natural Disaster Contingency Plan (NDCP). Local AF personnel should be cognizant of the SMO plan contents. A copy of all NDCP's should be provided to the appropriate control center. Such a plan, when properly developed, can reduce response times, can result in more efficient utilization of AF support personnel, and can concentrate restoration activities on the most critical facilities needed to directly support ATC operations.

**a. Notification.** The responsible control center shall immediately notify the regional communications center which will then advise key AF personnel of the status of ATC facilities under their responsibility. The regional communications center will be provided with an assessment of damages to FAA facilities and the expected restoration time for given facilities and services. The NMCC shall be notified of any natural disaster affecting the NAS.

**b. Procedures.** Procedures annotated in the NDCP should be used as guidance for coordination and service restoration activities. Logging activities shall be followed in accordance with FAA orders and procedures set forth for natural disasters, aircraft accident or incidents.

**c. Responsibilities.** In the event of a natural disaster affecting NAS facilities, it will be the responsibility of the control center to initiate immediate and appropriate action. With the assistance of AT personnel, the control center shall determine which facilities may or may not have been affected by the event. Once determination of NAS or facility status has been established, restoration activities will commence using the established priority scheme for air traffic support services restoration as annotated in the applicable NDCP.

### 3-65.- 3-69. Reserved.

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## **SECTION 8. LOGISTICS**

### **3-70. General.**

The responsible control center shall provide assistance and coordination necessary to ensure the timely restoration of ATC support facilities and services. To that extent, the control center shall provide a link between AF personnel needing emergency assistance and other sources for obtaining parts or supplies needed to restore the failed facility or service. Each emergency condition should be evaluated on a case-by-case basis. However, it should be the responsibility of local AF management to determine the best solution needed to solve the emergency requirement.

### **3-71. Priorities.**

The control center should provide logistics assistance to the field on an emergency basis, if required. For the purposes of this order, an emergency basis is defined as a priority P1 or P2 requisition, in accordance with the latest edition of Order 4250.9, Field Materiel Management and Control. When more than one region is in need of the same or similar resources, the NMCC will be notified. The NMCC will coordinate the priority of resources that may be required.

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## **SECTION 9. NAS INFRASTRUCTURE RESTORATION**

### **3-72. General**

Refer to the latest revision of Order 6030.31.

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## **SECTION 10. SERVICE LEVEL CERTIFICATION**

### **3-73. General**

An FAA order addressing service level certification is currently out for review.









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